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The

December, 1955 25c

Vol. LIII No. 3

# Cornell Countryman

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## Christmas is a thousand things.

It's a winter's night, and an angel song . . . a giant star, and a tiny stable . . . a manger, and straw, and swaddling clothes.

Christmas is a chime . . . a boy soprano, and *Silent Night* . . . carolers, and *The First Noel* . . . the tinkle of a bell on a sleigh, of a coin in a cup.

Christmas is Dickens, and Scrooge, and Tiny Tim. It's holly on the door, a candle in the window . . . the scent of pine, and the sparkle of tinsel.

Christmas is red and green, and blue and silver. Christmas is white.

Christmas is cards, and ribbon, and tissue paper. It's a trip home, an open latch, and a handclasp. It's giblets, and biscuits . . . cranberries, and mince-meat pie.

Christmas is cold and warmth . . . forgiveness, and a smile.

Christmas is a prayer . . . a renewed plea for an ancient hope . . . *For Peace on Earth, Good Will Toward Men.*

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## Cornell Countryman

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Vol. LIII—No. 3

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THE CORNELL COUNTRYMAN

## Editorially Speaking

# I Would Found . . .

THE recent White House Conference on Education reawakened the nation's concern over why Johnny can't read, write, speak, or think effectively. Similarly, we would like to promote a reappraisal of how the educational facilities in the College of Agriculture can be improved.

Most of us take pride in the quality of education that we receive in the College. The College requirements for graduation are sufficiently elastic to allow us to secure a general education at comparatively low cost. Many of us complete over half our requirements through courses in the College of Arts and Sciences. Yet, according to a report of the 1953 Committee on General Education to the Faculty of the College, "Many students in the College of Agriculture are not receiving a well-rounded general education."

Although some students so confine their studies to a specialty that they fail to see the value of a general education, other impediments exist for those who do desire a more general intellectual awakening. The Faculty Committee has acknowledged these deterrents and has recommended that action be taken to alleviate them from the College and University procedures.

Two years have passed since these recommendations were proposed. Yet some of them have not been acted upon, although they are worthwhile and for the betterment of our educational resources.

For example, one of their recommendations was that "Individual departments should review their requirements and, if necessary, make adjustments to permit their students to obtain a general as well as a technical education." Rigid requirements in the departments still prohibit some students from taking many subjects in the general educational fields.

Another of the Committee's recommendations was that "Instruction in all courses should help students to express themselves effectively in speaking and in writing." This need is still present. Many discussion classes are slowed down by students who are not able to say what they mean. Ambiguity and lack of conciseness still discredit an otherwise scholarly report. If such standards should continue, the job of improving understanding between agriculture and the other segments of the economy will be increasingly harder in the future. Moreover, effective communication involves more expression than just a distinction between what is true, false, or most nearly correct.

Commonly cited as a reason for the failure of some students to obtain a general education, and one recognized by the Committee, is the disparity between the colleges in requirements for good academic standing. Students in the Arts College need only to pass 12 hours each term, and to pass nine of the 12 with a grade of 70 or better. In agriculture, a student will be on probation if he does not maintain a cumulative or term average of 70. These differences cause variations in grading standards between the two colleges. As long as these differences exist, it is inconceivable that many students in agriculture will register for more than survey courses in the Arts College.

But these differences do exist, we still struggle with English, and too frequently confine ourselves, or are confined to a narrow technical field. How much dust will the report of the Committee's recommendations collect before it is forgotten?—*Alfred H. Wegener '56*

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## Inquiring Countryman

### QUESTION

*How would you alter a cow?*

### ANSWERS

*Frederick L. Ely '56, Agricultural Economics:* I would like to see a cow without a tail, with rubber hoofs so they won't hurt when they kick, small mouths and stomachs but large milk production, a Holstein with 5 percent butterfat; also a cow that talks and tells you when she feels sick and what she wants to make her better; a cow with a zipper on her reticulum so the hardware can be removed easily, a safety valve near her floating rib so she can let off pressure when she bloats. Or maybe one that can walk on two feet so she can help clean the barn and carry her own milk to the milkhouse, or with faucets on her teats so the milk will flow by itself when the faucet is opened.

*Rella Smith '58, Home Economics:* I would install cows with mufflers so the late sleeping farmer's daughter wouldn't be irritated by the early morning ruckus.

*Ronald Wade '59, Bacteriology:* Make them so they aren't so fool dumb. Get them so they go the right way when they should, train them to come and go like a dog, and to stay out of the corn.

*Sheila Siegel '58, Home Economics:* To me the cow is very sad because all she does is mope around and chew and rechew gobs of grass. I'd like to see a gay cow, a happy-go-lucky one who didn't look as if the weight of the world were resting on her stomach, with a good sense of rhythm and an ear for music.

*Joseph M. Wood '57, Agricultural Economics:* The udder seems to be in a rather poor location. I would like to see some of our eminent geneticists get to work and produce a cow with an udder on the back. This would greatly facilitate milking and eliminate much bending.

*Bruce Maher '59, Livestock Farming:* They should have twins once a year, milk all year round, and produce high grade beef in addition to milk.

*John Foster, Graduate Assistant in Agricultural Economics:* Change her interior workings so that manure would be eliminated and all that is now manure would become milk. Only problem is to get the Vet. College to develop these changes.

*Merville Button '58, Extension:* It would be a great aid to have cows with only one combination of dominant genes—no more "mixed-up bovines" with long, rectangular faces.

*David L. Myers '57, Dairy Farming:* I would like them housebroken to save those morning chores with fork and shovel.

*Evan A. Syrigos '59:* I do not want them to smell so awful and I do not like them to kick the milk can right after milking.

*Theodore Sweet '56, General Farming:* I would like a dairy cow that could produce 15,000 pounds of milk a year, 1,000 pounds of fat, weigh 1,500 pounds and get along on 180 days of pasture, one ton of grain, 2.5 tons of grass silage, and 1.5 tons of alfalfa hay. I would also require this cow to have only heifer offspring weighing 100 pounds at birth.

## Around The Upper Quad

**I**NFLUENCED by the usual pre-holiday rush of prelims, papers, and quizzes, many upper campus activities are taking a breather this month in preparation for renewed activities at the beginning of the year.

Fourteen members of the Cornell Grange recently traveled to Cleveland, Ohio for the annual convention of the National Grange. The Recreation Team provided two recreational programs for the group which included Grangers from all over the United States, as well as college representatives from Ohio, Michigan, Minnesota, New York, and Pennsylvania, and several foreign exchange students. Ten of the Cornell representatives took the Seventh degree at the convention, and two of the representatives filled national offices: Herbert Stoevener '56, Chaplain; and Lyle Gray '56, High Priest of Diameter.

Another member of the group, Ruth Morse '56, participated on two panels discussing the Grange interstate exchange program. As a part of this program, Ruth spent a month last summer with a farm family in Nebraska, and the following month played host to a Nebraska farm girl. Other members who attended the convention were Edwin Hadlock '56, Flower Clark '57, Sylva Espenchild '57, Elaine Bushart '59, Allan Bean '56, Carol Criss '56, Bob Lewis '56, and Lee Johnson '59, Bob Beebe, Jim Botcher and Del Law.

Dr. L. B. Darrah, professor of marketing, and Emen Moore will speak at 8 p.m. on December 14 to a meeting of the Agricultural Economics Club on the topic "Modern Methods of Merchandising Agricultural Products." Including in their discussion several products of current marketing research, Prof. Darrah will demonstrate the new polyethylene egg packaging system he has developed.

### Countryman Progresses

**F**IVE members of the *Cornell Countryman* staff attended the annual convention of the Agricultural College Magazines Association held at Chicago during Thanksgiving vacation. Several questions came up at the convention such as the following: Should an agricultural college magazine report research or campus news? What are students really interested in reading? Should these magazines include more articles on home economics than they now do? The delegates reports that there are as many answers to these questions as there are magazines.

In contests judging the issues of 1954-55, the *Countryman* received first prize in "Articles of Interest to Women", second prize in "Technical Articles", and second place for its February cover.

After six weeks of learning about the operation of the *Countryman*, 13 compets were elected to staff positions at the *Countryman's* November meeting. They were: Natalie Gundrey '58, Janet McGinnis '56, Jeanne Perkins '58, Barbara Spielberg '56, Gretchen Wise '59, Dale Burrell '59, Robert Hunter '58, Douglas Innes '59, David Menard '59, Daniel Michl '58, John O'Hagan '58, Charles Pease '59, and Robert Prata '57. Competition for the next election to the staff will be held during the spring term.

DECEMBER, 1955

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# Flowers Stored At 31 Degrees = That Last Longer

by Natalie L. Gundry '58

A newly developed method of storing flowers features blooms that can be a month old but just as fresh and firm as when they were cut. This new method will also help to provide buyers with a more continuous and steady supply of flowers. Developed by Charles Fischer and the late Dr. Kenneth Post of the department of floriculture and ornamental horticulture at Cornell, the plan utilizes low temperatures as aids to preserving bloom longevity. The flowers are stored at one degree below freezing, without any water, for as long as six weeks in some cases.

Usually, the florist cuts the stems of the blooms, puts them in water and stores them in a 50 degree refrigerator. The buds begin to open soon after that. This means that those which are 6 or 7 days old cannot be sold with the assurance that they are top quality, for even small periods of storage result in reduction of flower quality.

## Fresher Than Fresh

Cold storage flowers actually are not fresh, since they have been cut weeks before, yet they are in much better condition than fresh cut ones. Tulips will last from six to eight weeks. Carnations as well as lilies are still beautiful after a month. Chrysanthemums can be held for five or six weeks, and roses, one of the more delicate favorites, last 18 days. Gardenias stay for three weeks, daffodils for two, and lilies-of-the-valley will be in perfect condition three weeks after cutting. This is possible because the rate at which a flower gives off water and gases (the respiration rate), is what determines the length of its life after it is cut. The faster respiration takes place, the faster the bloom will deteriorate, since it cannot replenish its supply of carbohydrates. If respiration can be stopped or impeded, the flowers will last longer. The Cornell experimenters discovered that the respiration rate at 32 degrees is half that at 50 degrees; at 50 degrees it is half that of 65 degrees. Preventing respiration and preserving the flowers, then, is a matter of bringing them to the

lowest possible temperature without allowing the formation of ice crystals in the cells. 31 degrees is the temperature at which this is possible. However, this type of storage is absolutely valueless if an exact temperature is not maintained, for at 29 degrees the flowers freeze, and at 33 degrees their quality is reduced quickly.

This low temperature refrigeration combats those forms of deterioration common at 50 degrees. For example, no change occurs in the development of the bud and size of the flower at this temperature. At 50 degrees, the buds open, mature, and die, or develop into poor shapes which make the flower not fit for sale. Bacteria and

Good equipment is important in keeping the flowers attractive. Blooms are usually placed in an airtight and waterproof drum, resting on their stems, without any free water in the bottom. The drums must be placed on a raised, slatted wood floor, and in such a way to prevent blocking of free moving air. The minute air in the refrigerator becomes stratified it gets cooler, and may drop just the one degree needed to kill the flowers.

When the flowers are brought out of storage, they are slightly wilted. This is easily remedied by putting them in 100 degree water for a few hours. Then they are firm, colorful and ready for sale, and will last another 6 or 7 days at room temperature.

Like all innovations, it will take time for this plan to become a workable reality, accepted by the majority of florists. Many of them will not use it because they are not aware of how it works and how it will benefit them. Some are afraid that it will kill their crop. Customers offer resistance by insisting on "fresh cut" flowers. They do not realize that a 31 degree flower is better for home use even though it



—COLLEGE OF AGRICULTURE

Professors William E. Snyder and R. C. Andreasen use facilities for flower storage research.

fungi are less of a problem, since those that ordinarily attack and rot a flower cannot multiply in this extreme cold. Color fading, especially "bluing" of roses, is prevented by the fact that there is no free water present.

Because of the slowing down of all the life processes, ethylene gas production, a result of maturation of bloom or fruit, is checked. As little as a few parts of ethylene in a million parts of air can make snapdragons drop their flowers and carnations go to "sleep", a term used to denote the turning inward and closing of the petals.

is a few weeks old.

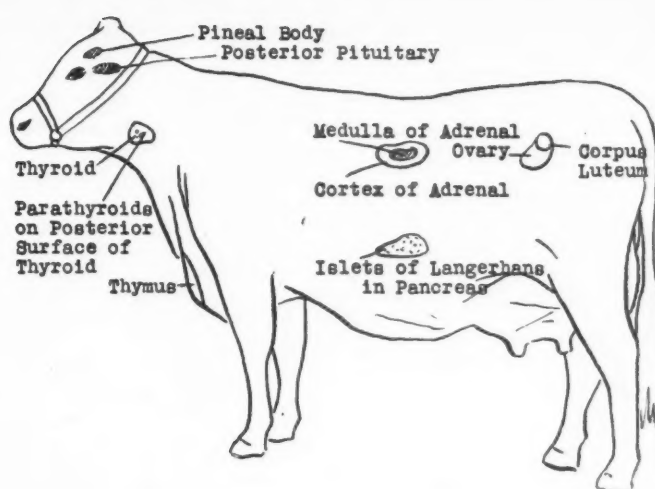
There are rough spots to be smoothed over too. Most orchids and gladioli cannot be stored this way at all. They become brown and spotted, or the buds fail to open. This is also the problem with many flowers originating in tropical areas.

The advantages of 31 degree storage are greater than its problems. Florists are slowly beginning to convert their old refrigerators into low temperature ones. Perhaps in a few years, "fresh" flowers will be a thing of the past.



by Betsey W. Johnson '58  
and George VanCott '57

# Hormones Help



**R**ECENT widespread use of stilbesterol, a synthetic female sex hormone, to increase the rate of gain in fattening steers has brought before the public some aspects of a field which was previously regarded as purely a research area—the field of endocrinology.

Research in the field really began about 1849 when Berthold first experimented with caponizing cocks. However, some of the changes associated with castration, removing the source of the male sex hormone, were known even before the days of ancient Rome as evidenced by the widespread use of eunuchs to guard harems.

Since research in endocrinology first began, numerous applications of the experimental results have been found that apply directly to livestock feeding and management as well as to treating disorders. The importance of the latter is emphasized by an U.S. Department of Agriculture estimate that animal losses due to disease and other disorders are equal in value to the yearly income possible from 20-million acres of cropland. By applying our knowledge of hormones, we are able to alleviate the problem to some extent, even though never completely.

## From Steers . . .

Some of the many and varied uses of hormones in livestock production can be illustrated by tracing the production of slaughter steers indicating some of the hormones that might have been administered in their life cycle before marketing.

One way hormones can increase profits in beef production is by helping to insure a larger calf crop. This can be accomplished by increasing the fertility of both male and female.

Four hormones have been used to

increase the fertility of bulls. They are the follicle-stimulating hormone (F.S.H.), lutenizing hormone (L.H.), testosterone, and thyroxin. The first of these, F.S.H., is produced by the anterior portion of the pituitary gland (the so-called "master gland") and can be extracted from the glands of slaughter animals or from the urine of pregnant mares. If the bull's production of this hormone is below normal, the injection of it may cause more sperm to be produced, and thereby increase fertility. Treatment with F.S.H. has been found to have varying success when applied under farm conditions.

Lutenizing hormone, another product of the anterior pituitary, acts to increase the production of the male sex hormone, testosterone, by the interstitial cells of the testes. The testosterone, which can also be injected directly, is the cause of the development of the male secondary sex characteristics and its particular application to livestock production is mainly in causing increase libido or sex drive.

Libido may also be increased by the injection of thyroxin, the hormone of the thyroid gland, or by feeding iodinated casein, a synthetic with the same physiological effect as thyroxin. The hormone hastens most of the body processes, including a possible improvement in semen quality. All of these hormones are used to some extent under practical conditions, but there is still much research to be done before they can be fully utilized.

Infertility in the female can be treated with a little more certainty. The most common treatment is the administration of estrogens (or the cheaper, synthetic, stilbesterol), which cause the cow to come in "heat" if she does not naturally do so. This may result in pregnancy if given at the proper

stage of the estrus cycle.

If the cow still fails to conceive, F.S.H. may be injected. In the female, this hormone causes the maturation of ova in the ovaries. Lutenizing hormone may be given after F.S.H. to cause the release of the mature ova, or if there is reason to suspect that infertility is due to the lack of L.H. alone, it may be administered by itself. Very small amounts of progesterone also may stimulate release of L.H. by the cow's own pituitary, although the reason for this is not known. As a matter of fact, large amounts of progesterone (produced by the corpora lutea which form on the ovaries after the egg is shed) act to prevent ovulation completely.

## . . . to Cows

In the cow, although in few other animals, adrenalin can be used to quiet too violent contractions of the uterine muscles and, thereby, increase the chance of the sperm reaching the ovum to fertilize it.

A variety of disorders occur at calving which may be alleviated by administering hormones. Progesterone may be used to treat parturient prolapse of the vagina ("casting the withers"). A retained placenta, or afterbirth, may be expelled after the injection of oxytocin. This hormone is normally produced by the posterior lobe of the pituitary and causes the uterine muscles to contract. Oxytocin may be used in conjunction with the estrogens for a better effect.

For cows that have a history of trouble at calving, relaxin, another posterior pituitary hormone, may be given to induce relaxation of the birth canal. In laboratory experiments, it has been found the relaxin may cause

(Turn to Page 16)

# Product Advertising

A New Idea . . . Necessary, If Foods Are  
To Compete With Other Consumer Items  
And Markets Are To Be Expanded.

by Christine C. Carr '57

SECRETARY of Agriculture Ezra T. Benson recently praised the work of dairy industry in moving more butter, cheese, and dried milk products from the storage bins into general consumption. Speaking last month at the annual convention of the National Grange in Cleveland, Ohio, Secretary Benson said, "Promotion efforts by all the dairy industry, both processors and producers, have had a wonderful effect in boosting the consumption of many dairy products. The industry itself has vigorously attacked the problem." Product advertising is one of the methods employed by the dairy industry and other groups of farm producers to increase consumption, as well as to provide direct benefits to producers.

## Brand vs. Product

However, the American public is most familiar with brand advertising programs which attempt to sell consumers the characteristics of a particular brand. Brand advertisers largely assume that there is a desire for the product and emphasize the characteristics of the brand rather than of the product. Today, however, all food competes with an infinite variety of other goods and services. Product advertisers, therefore, strive to publicize the characteristics and value of the food product in aiding this product to successfully compete with other foods, goods, and services.

With the growing need for disposing of larger crops, more competition, and the increased tendency for agricultural industries to organize on a cooperative basis, we may expect the co-operative advertising of farm products to become more widely accepted. By attempting to change consumer habits, advertisers hope to widen existing markets and to create new ones. For example, steps have been taken to promote the sale of good quality fruit of odd sizes which would normally be

stocked up in surplus and sold at a loss. In addition, the year-round use of many products which we consider seasonal has increased the total yearly consumption of these products.

Advertising, of course, merely supplements personal salesmanship. The principal value of advertising lies in its power to create new markets, new desires, new demands. Agriculture, because it has not been organized, has been one of the last industries to directly utilize advertising. Most of the farmer's advertising has been done for him by the manufacturers and processors. But in recent years farmers have developed the need for winning a larger share of the competitive market. Resistance to advertising may lie in the public's lack of appreciation for a product, its value, and its uses.

A widening of the basic market from which all members profit can be undertaken most logically on a cooperative basis, giving publicity to the advantages of cooperative organization. Organization is necessary to devise and execute plans, levy and collect money, prescribe and enforce standards, and coordinate the sales and advertising activities. Many of the cooperative associations represent a majority of the acreage of a crop and can therefore assume the responsibility for carrying on such educational advertising as will benefit all growers alike.

## Majority Needed

In larger industries where no one organization represents a majority of the tonnage, none can afford to advertise for the purpose of increasing the total consumption of the product. In many cases, trade-marks or brand names have been adopted by organizations of producers. The trade-mark then becomes a guarantee that the product is dependable and that its quality is high. Producers who own their own trade-marks are not dependent on the popularity of the brand un-

der which some wholesaler, canner or packer sells. Sometimes the association only advertises the product. In a majority of cases, however, the association is primarily a marketing organization whose advertising is a part of the sales program and is closely coordinated with it.

## Whys and Ways

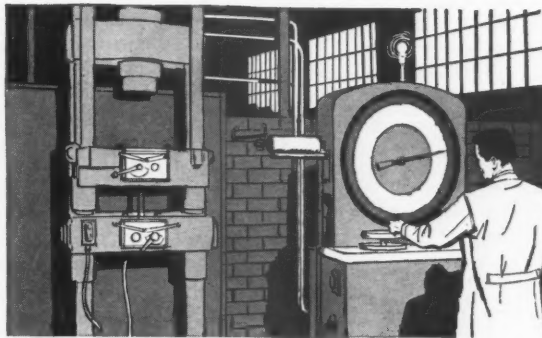
The most thorough and economical way of product advertising is by suggesting various ways of serving consumers, and by offering them reasons for using the product. The expense for such a program may be shared by the jobbers in the distributing markets, or by both the growers and packers. The cost is usually divided among the cooperators in proportion to their respective opportunities to benefit from the program. Since the benefits are usually in proportion to each member's shipments, assessments are usually levied on a unit of production or sale. Sometimes the assessments are based on the previous year's shipments, but more often they are based on the estimated shipments for the current year, and are adjusted at the end of the fiscal year for the actual amount of the shipments made. If the entire appropriation is not spent at the end of the year, it may be prorated on the grower's shipments, kept in a sinking fund, or carried over for later use.

Such a program should be employed only if advertising is to be a permanent policy, because the results of advertising are cumulative. In addition, it is necessary that proper sales follow-up on the part of the member of the association be insured to get the full value from any advertising program. As the volume of sales increases, the cost of advertising will decrease because product advertising will widen the existing market and allow the farmer to sell all the goods he produces at a profit.

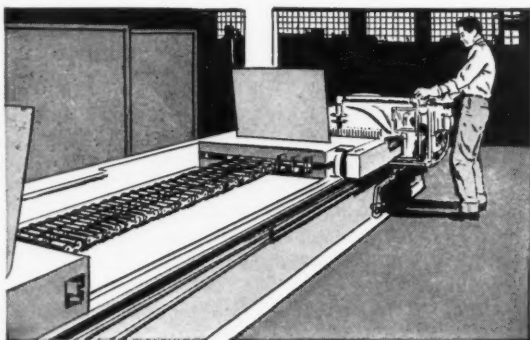
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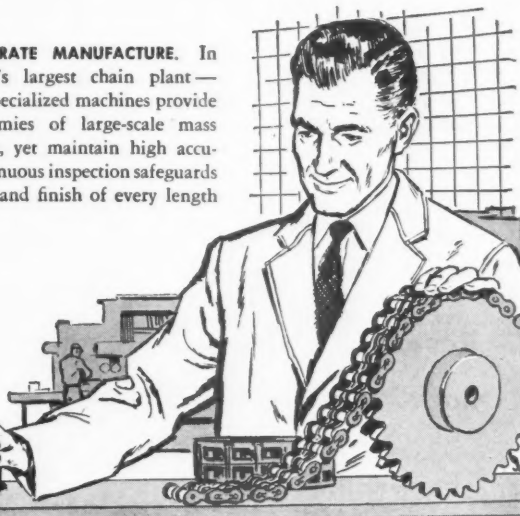
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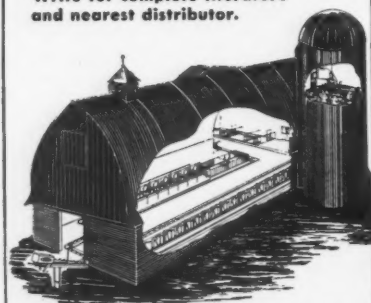


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## CONTRAST: CORNELL-UPPSALA

By J. Eric Johansson, Grad.

**M**OST readers have probably read the letter sent to Cornellians by George L. LaMont which appeared in the October *Countryman*. George is now studying at the Royal Swedish Agricultural College at Uppsala. He and I are taking part in an exchange program between the two colleges and appreciate the opportunity to share experiences with students in another country.

After having spent two months at Cornell as the Swedish representative in this program, I have found that there are marked differences as well as many similarities between the two colleges in respect to what they require of their students and what the colleges offer them.



-PINKAS

### J. Eric Johansson

In Sweden, graduation from senior high school takes place when the student is about 20 years of age. A student can major in natural sciences, classical languages, or modern languages, depending upon what he is planning to do after high school. Each student graduating from senior high school is expected to be able to study from textbooks written in a foreign language because several of the textbooks used at the college are imported or written by Swedish authors in English or German.

Before entering the Agricultural College at Uppsala, a student must have majored in the natural science branch of senior high school and have had two years of farm practice. It is very common that the male student

has a year of compulsory military training between graduation from senior high school and entering a university or college. An individual must be 16 years of age before he begins his farm practice and only one year of requirement may be satisfied at the home farm. Furthermore, he has to work during a whole vegetation period at the same farm. Hence, the student entering the Agricultural College is about 22 years old. As at Cornell, he has to spend about 4 years at the College before he can get his bachelor's degree.

Students at the two colleges have nearly the same opportunities to specialize in their studies, but the teaching methods at the two colleges are quite different. The Swedish student has no required number of credit hours to take each semester and he has no time limit to complete his degree.

Most professors at Cornell lecture on the entire course material but their colleagues in Sweden lecture only on special parts of the course. The student has to learn the remainder of the course from textbooks and articles written in scientific publications. Examinations may be taken whenever the student feels that he is sufficiently prepared. Some may postpone these examinations for as much as a year after classes have ended. These examinations are either oral or a combination of both written and oral. An oral examination runs, as a rule, for over an hour, during which the professor checks the student's knowledge of the entire course material. The preliminary and final system exists only in some subjects, for example, mathematics, physics, and statistics.

The requirements upon the student at the two colleges are quite different and they have to be. The countries that the two colleges serve are different and so are the needs of the students. Cornell serves a large nation whose language is spoken by at least 500-millions people, while the College at Uppsala serves a small nation, with a language spoken by only 8-millions. But the purpose of education at the two colleges is the same, to serve agriculture. Therefore, an exchange between students of the two colleges gives them new ideas and experiences that will help them as individuals in trying to solve problems common to both countries.



—COLLEGE OF AGRICULTURE  
Prof. L. B. Darrah, who developed the idea of selling shell-less fresh eggs, shows the finished product to Trustee Dexter S. Kimball, Jr.

## Shell-less Eggs

**R**OLLING eggs on the White House lawn may be done in a unique manner this Easter. That is, if the President adopts the newly developed method of marketing eggs without shells to this yearly sports. It will certainly have one big advantage for the egg rollers: no shells to break.

Homemakers will also find shell-less eggs, as developed by Dr. L. B. Darrah, professor of marketing at Cornell, to their favor because of the many other advantages these eggs have over eggs with shells. In the polyethylene container the eggs do not have to be refrigerated, but they will keep fresher if they are. The eggs can be boiled or poached in their compartments and after cooking they may be eaten right out of the container. Then cannot be fried in the container because the polyethylene cannot withstand the heat of frying. Separating egg whites from the yolk is simplified by cutting a hole in the top of the container and draining out the white. The yolk remains in the container.

Sold in 12 compartment polyethylene packets, "naked eggs" will be available in selected Ithaca stores by March or April. Later, the eggs will be made available to other food stores throughout the state.

According to Professor Darrah, the shell-less eggs should be cheaper and will be just as good as eggs in the shells. "Early indications are that the process will lower the cost of marketing eggs and keep them fresh longer," he said. Shell-less eggs offer a real opportunity for increased sales of pee-wee eggs. By placing two pee-wee eggs in each of the 12 compartments, a double-yolked egg can be made available to consumers at about the large egg price. Also, the cost of the polyethylene containers is less than the cost of present containers.

This method of marketing eggs utilizes certain electronic devices. A machine breaks open the eggs and drops them into individual compartments. Then, after carbon dioxide has been added to maintain quality, another machine seals the compartments with a strong film. There is no handling by human hands.

Inaccurate grading of eggs will be eliminated by this system of marketing. Blood spots, which lower the grade of eggs, may be siphoned out of the yolk of shell-less eggs. A machine can determine what eggs have blood spots and can separate those eggs. If graders of eggs could see the actual contents of an egg, grading could be more accurate than the present method of grading by size.

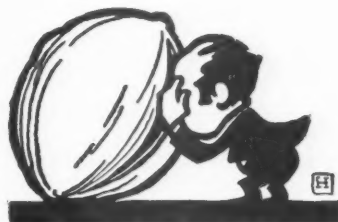
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# Decorate For Christmas

by Gretchen A. Wise '59

CHRISTMAS decorations add as much joy and spirit to the holiday season as do gifts and mistletoe. Some students even get "primed" for the Christmas season by making their own decorations instead of buying them. It's not hard to do. The materials are easily obtained or are already on hand and the completed wreath, corsage, or centerpiece will more than compensate for the short time spent in making the decorations.

Christmas wreaths for display inside the home, in doorways, and outdoors are popular decorations and are easy to make. Any evergreen branches may be used as the basic materials—holly, spruce, arborvitae, white pine, fir or ground pine. To add extra color, use red ribbons, fruits, candles, dried grass, or seed pods that have been painted. Little Santa Clauses and angel figures may also be used. To perk up an outside wreath, an oil cloth or plastic bow will last longer in snow and sleet than a bow made of cloth ribbon.

A good method for constructing the frame for the wreath is to cut two lengths of clothesline wire, one about six inches longer than the other. Bend each wire into a hoop and tape the ends together so that each wire forms a complete circle. Next, wire the two hoops together with florists wire so that they form two concentric circles. Then lay the completed frame flat on a table. The work will proceed faster for right handed people if the greens are in a pile on the left and the florists wire is held in the right hand. The reverse is recommended for left handed people. Pick up several twigs in a bunch and bind them on to the wreath frame. The wreath will ap-

pear fuller if the greens are fastened on the back as well as on the front of the frame.



—COLLEGE OF AGRICULTURE

The decorations should be added last so that they will not be wasted. Berries and small fruits such as kumquats may be stuck on the ends of toothpicks and then wired to the wreath. To fasten pine cones to the wreath, first stick a tack or small nail into the base of the cone and twist the end of a piece of wire around the tack. Next push the tack into the cone and fasten it with protruding wire to the wreath frame. Dip fruits in colorless shellack to preserve them and to add a shiny finish. But if they are to be eaten later, paint them with a sugar syrup. Nuts and larger fruits must be pierced with a wire first and then attached to the wreath.

A mixture of several different kinds of greens in a wreath is much prettier

than just one color and texture. Also, to make a good effect, any Christmas decoration must be in proportion to the place where it will be used. For instance, a table centerpiece must not be too large to see over, or a wreath too large to fit on the door or window for which it was intended. A brightly colored or imposing wreath might look out of place and be in bad taste in a formal surrounding. Yet, the same wreath might look very nice in an informal, casually designed home.

A centerpiece is a very attractive decoration for a dining room table, mantelpiece, or dormitory windowsill. First make or buy a wooden base for the centerpiece, or use a bowl containing a frog so that the greens will not stain the table. If candles or statues are to be used in the design, attach them to the base first. Next, tack on greens or spaghnum moss to conceal the base, then build up the rest of the decorations around this—fruit, nuts, berries, ornaments, etc. If you wish, spray the centerpiece with artificial snow. A less expensive method is to boil soap slivers in water until it is the consistency of cream. Then whip the mixture to a stiff foam and apply it to the decoration with a spoon. Another attractive centerpiece can be made by piling Christmas tree ornaments on a platter or bowl and then spooning the whipped soap mixture over the balls.

## Easy To Make

Evergreen balls, which may be hung from the ceiling by a dark thread or in the window, are easily made and call for few materials. Only a ball of spaghnum moss, a long piece of wire, and sprays of evergreen six or seven inches long are needed. Shape the moss into a ball about five inches in diameter and wrap the wire around it firmly so that the moss will not loosen and fall out. Next, sharpen the ends of the springs and stick them into the moss so that they form a sphere.

Christmas corsages may be made from leftover greens and ornaments. The most popular materials are pipe cleaners, berries, mistletoe, holly, pine, or spruce springs, ribbon, Santa Claus, or angel figures, and candy canes. First bind the greens tightly together with wire, then wire the other decorations to this base, taking care that the corsage is neither too heavy or too large.

By using a little imagination and effort, anyone can easily accomplish wonders with a few greens, some wire, and few small ornaments. Decorations do not need trademarks or price tags on them to be attractive and popular.



## *Why Metropolitan believes in "Milk Meetings"*

Today's milk marketing picture is a mighty complex one. It affects every farmer in this area, whether he's a dairy farmer or not, since dairying is so basic a part of New York State Agriculture. So it's important that every farmer know something about the milk marketing orders, and that dairymen in particular understand the situation.

Understanding of complex marketing orders comes about through education and information. Metropolitan's experienced technicians give many talks and conduct many discussions throughout this area, in order to help dairymen to a better understanding of milk marketing problems. As a prospective farm leader, you are entitled to full knowledge of the rules and regulations that control a vital segment of your business. Metropolitan's "Milk Meetings" present this information, in clear, non-technical terms.

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## Rats . . .



## . . . Reduce Farm Profits

by Robert B. Hunter '58

NEW YORK farmers are losing \$6,800,000 yearly because of damage inflicted by rats. This is an average loss of \$40 per farm. Farmers can decrease these losses considerably by taking positive steps to rid farms of the unwanted invaders.

These steps involve more than chasing after an occasional rat with a shovel or pitchfork. In fact, farmers rarely see most of the rats on their farms. According to Professor W. R. Eadie, a conservation specialist at Cornell, "for every rat that you see during the day, there are 100 more somewhere on the farm."

### Into Everything

Although farmers might not see most of the rats on their farms, the damages these rats inflict is certainly noticeable. Rats may damage growing corn, and will eat melons, pumpkins, and tomatoes on the vine. They dig up bulbs and other tuberous plants and will even climb trees to eat cherries. The gnawing rodents can ruin woodwork and have been known to bite through the metal tops of jelly jars. Their nests are usually made of rags which may cause fire by spontaneous combustion.

Poultrymen suffer very high losses due to rats. One poultry operator reported losing 600 day-old chicks in one night. Besides killing chicks, rats may damage buildings and eat eggs and feed. It is not uncommon for a pair of rats to eat or destroy as much feed as a hen will consume in a year.

Rats may be found wherever there is an abundance of food and shelter. During the summer they inhabit fields, trash piles, and ditches, but during the fall and winter they move to barnyards and village residences. Therefore, the most effective time to kill them is during the winter months when they are concentrated in buildings.

To effectively reduce damage by rats, farmers should first eliminate the places where rats breed and find food. Farmers should then repair walls and floors so as to prevent the

rats from re-entering the buildings. Finally, there are many methods which may be employed to exterminate the existing rats. One of the most effective of these is by poisonig.

Two recently developed poisons, warfarin and pival, are better and safer than previously used poisons. One reason for their superiority is that they kill by internal bleeding thereby not causing other rats to be suspicious of the poisoned food. Another advantage is that one dosage will not kill dogs, cats and other farm animals. However, if animals continue to eat the poison they will be killed unless injected with vitamin K by a veterinarian. Warfarin and pival are usually mixed with food that is not desirable to animals other than rats. The poison should be placed under a baitbox, such as an overturned apple box, to make it inaccessible to other animals.

Another effective means of exterminating is by gassing, but this should be handled very carefully as it can be very dangerous. Calcium cyanide and carbon bisulfide are two gasses commonly used.

### "Great Sport"

One method, blocking, is considered by many as "great sport." Farmers who use this method cover all exits that rats use in leaving a building, and leave all entrances open. About an hour after dark when all the rats are feeding, the entrances are quickly closed with burlap bags or sliding doors. It is then possible for the farmer to go in with a club and kill the rats. It is wise to tie your pantlegs because a frustrated rat will often seek refuge there.

Trapping is used only as a last resort or when there are only a few rats. If there are many rats however, the first rat caught will frighten all the rats so that further attempts will be ineffective.

By using one or several means of extermination, farmers can effectively reduce the amount of damage caused by rats.

## Cooking In Comfort

- **New Electronic Range Saves Valuable Time**
- **Adjust Divided Range For the Right Height**

by Jean E. Jellinek '58

**E**LECTRONIC energy will soon be used to decrease the homemaker's work time and increase her family's pleasure. When the electronic range appears on the market early next year, buyers will be able to reduce their food preparation time to a fraction of what it is now. No longer will it be necessary to slave over a hot stove, for not only does the range diminish meal preparation time, but it confines the heat to the food. With the electronic range, a 5-pound roast can be cooked in 30 minutes, frozen foods in 5 minutes, and eggs in 20 seconds.

The homemaker must adjust to a routine of cooking her food in minutes instead of hours. Also, her family must learn to like electronically cooked food. Since the food is heated for such a short time, it has a different appearance from food prepared on conventional ranges: baked potatoes have no crust; cakes do not become golden brown; roasts and steaks do not acquire a charcoal crust.

To avoid this, the manufacturers suggest cooking the food first in an electronic range, and then putting it into a conventional range to brown for a few minutes. This has worked successfully in several commercial establishments where the range has been tested, but would be impractical in the average home because the family would need two ranges.

### Cost Is High

The cost of the range is high, more than twice the cost of a luxury electric range. It will be available in both cabinet and built-in models. Thus, the oven can be installed apart from the burners.

The range operates on microwave energy. The microwaves flow from a magnetron tube as light flows from a bulb. Food on top of the stove is cooked by conduction, and since the

microwaves penetrate only about 3 inches, products such as roasts are cooked largely by conduction.

It will probably be several years before the range is occasionally seen in home kitchens. However, in preparation for the day when consumers demand more electronic equipment, scientists are now studying the possibilities of an electronic refrigerator.

### Customed For Cooks

Homemakers using a divided range, in which the burner unit is separated from the oven, are finding their work greatly eased. The advantage of the divided range is that each homemaker can have her oven installed at a height for maximum ease, safety, and convenience. Furthermore, the burners can be placed in custom-made cabinets, which provide individual functional storage.

But many women who own a divided range are not sure of the most convenient height to place the oven. They may instruct the installer to place it at such vague points as the regulation height or the usual height. Such random directions rarely are successful in installing the oven at the best height for the individual.

Thus, the homemaker must have some method of deciding on the best height for her oven. In an experiment involving 50 homemakers in the kitchen of the department of economics of the household and household management, it was discovered that the correct height for the oven was not determined by the woman's own height or build, but by her "elbow height": the distance from the floor to the elbow when a woman stands with her arm bent so that her upper arm and forearm make a right angle. When this measurement is used, the oven will be at the point of maximum convenience and ease.

## The **EMPIRE** Story

by R. V. Hemming,  
*General Manager*  
Empire Livestock Marketing  
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Mr. Hemming

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# Ponies From The Sea

by Rosamond A. Haire '57

WITH relentness fury, the howling wind dashed ocean waves over the deck of the floundering, four-masted schooner. On board, frightened sailors fought to preserve the ship and its cargo of Arabian horses bound for the Carolina plantations.

But the schooner did not reach port; beaten against the massive grey rocks which surround the coast, its crew perished. However, there were some survivors—several of the horses managed to swim through the wreck-ridden sea to shore.

Descendants of these and other horses who survived such shipwrecks of 400 years ago still inhabit the Outer Banks of North Carolina. Although hardy and wild, these horses, called Banker ponies, are stunted in size. Lack of adequate fresh water and continued feeding on coarse marsh grasses have caused this diminution in stature.

To improve the appearance of these pony herds, Pinto and Calico stallions were introduced recently. Today the resulting crossbreeds are less scrubby than the original ponies. They are slightly larger and have much finer features than their shaggy dwarfed forbears. There is also a strong tendency toward more white markings.

Few equines in history have mastered the art of swimming as have the island ponies. Many an old sailor has

more than met his match in attempting to catch or ride a sea-going pony. Nor are imported stallions a match for their mares and colts with their fishlike swimming skill.

The Banker ponies are privately owned and each is branded with a registered brand. The registration fee of ten cents is the same as it was 200 years ago.

Pony pennings draw many tourists to Beaufort, North Carolina each summer. On the first Saturday in June, July, and August, prospective buyers round up these little horses and purchase some of them, paying from \$50 to \$100 each. Those not sold are branded and released. Ponies that are sold are taken to the mainland where they are trained for riding and driving. They have become very popular as pets because they tame easily, are of a gentle nature, and are very easy to keep.



Admirers are also attracted to these ponies by the mysteries and legends associated with them. The tale is told of how Nag's Head Island got its name. Years ago the people of the Outer Banks are said to have tied lanterns around the ponies' necks. Unsuspecting seafarers thought the bobbing lights were vessels at anchor in the harbor. Steering toward this supposed harbor, their crafts ran aground on the reefs and the wrecks were looted by the Outer Bankers.

The descendants of these legendary ponies remain free to roam the salty marshlands along the Carolina coast. However, three days each year, some are destined to leave their strange wild existence for a less colorful but easier life on the mainland.

## Hormones Help

(Continued from Page 7)

decalcification of the pelvis to allow more room for the birth of the calf if given far enough in advance.

In the growing and fattening of beef animals, hormones are of greater value as feed supplements than as correctors of abnormalities. The female sex hormones, or estrogens, are of primary importance. Why they stimulate growth and fattening is not known. The effects are possibly due to increased cellulose digestion by rumen micro-organisms and/or increased growth hormone production by the anterior pituitary. The synthetic female hormone, stilbesterol, is used commercially because it is inexpensive and it also can be given in the feed while the natural hormones must be injected. Dienesterol and hexesterol are similar compounds with much the same effect, although the latter seems to be about as powerful as stilbesterol while dienesterol is less active.

Animals fed these hormones show greater rates of gain, greater total gain, and better feed utilization. However, the disadvantages of hormones are quite important since stilbesterol-fed steers are usually about 1 grade lower than untreated controls which may make quite a difference in the market price of the animal. Also there is a possibility, as yet unproven of harmful effects on humans from residual hormones in the meat. However, the benefits apparently are enough to give a greater gross return, since it has been estimated that over 60 per cent of the steers fed this fall are receiving some hormone supplement.

Obviously most of these applications of research in endocrinology are not 100 per cent effective, and the full benefits of them have not been worked out, but one can still see the possibilities for present and future increases in farm livestock income.

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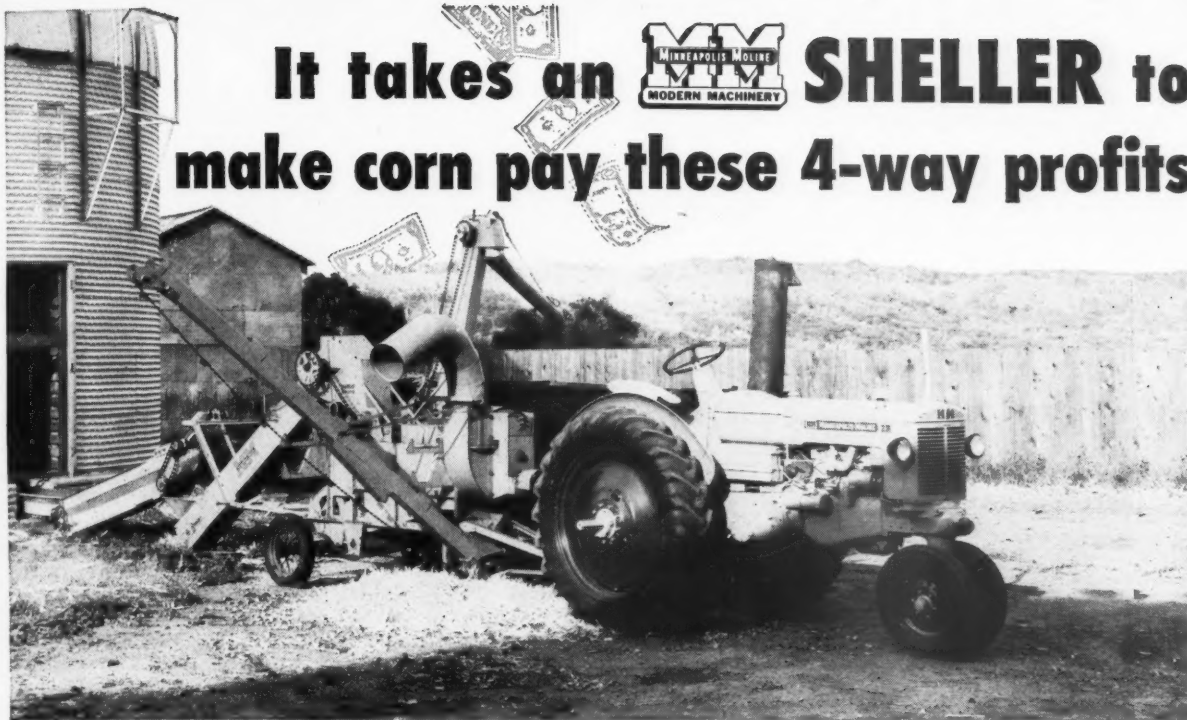
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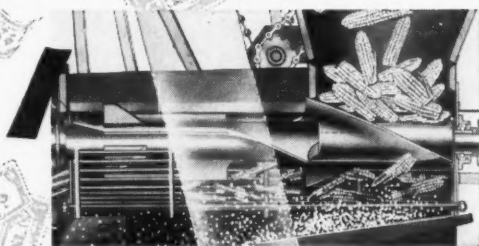
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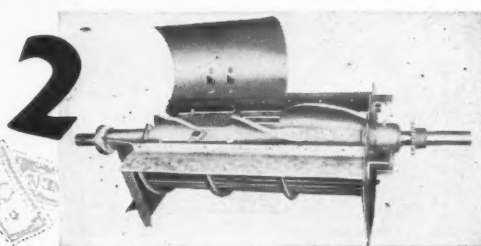


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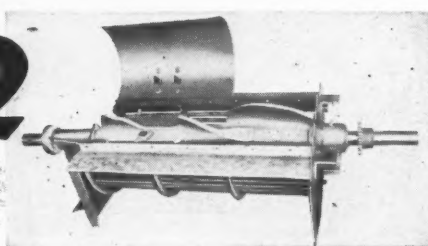
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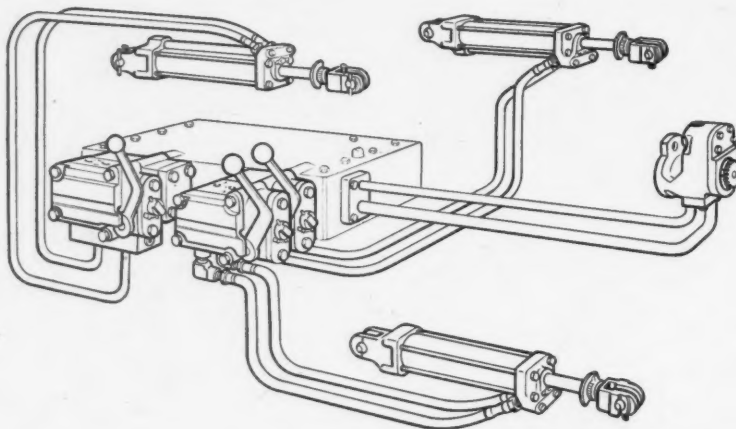
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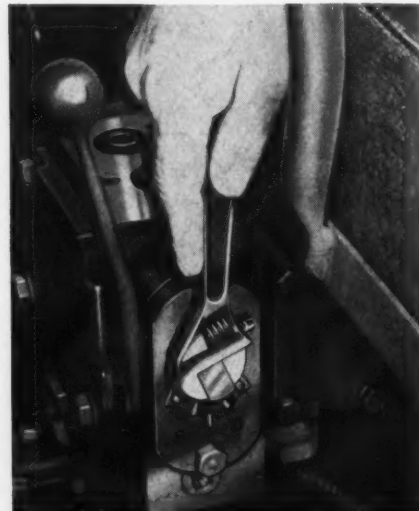
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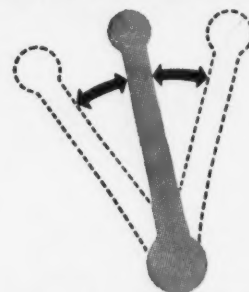
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